

Hirao Takashima
Serial No.: 09/851,070
Filed: May 6, 2001
Page 6

REMARKS

Claims 1-15 were pending in the subject application. Applicant has hereinabove amended claims 1-11, and added new claim 16. Accordingly, claims 1-16 are presented for examination.

Support for the amendments to claims 12-15 and for new claim 16 may be found, *inter alia*, in the specification at page 5, line 25 through page 8, line 5; page 8, line 27 through page 10, line 9; and page 11, lines 18-23.

Applicant maintains that no new matter is presented by this amendment. Accordingly, Applicant respectfully requests that this Amendment be entered.

Rejection under 35 U.S.C. §112, second paragraph

In Section 1 of the May 29, 2003 Office Action, claims 1-10 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

The Examiner stated that independent claims 1 and 6 recite a sponge cake premix comprising as a main ingredient a cereal powder, a batter prepared by adding a thermal coagulation protein to the premix and then cooking the batter to make a sponge cake wherein the cereal powder comprises starch and pregelatinized starch. The Examiner also stated that Applicant has drafted an aggregate claim, and should have an independent claim drawn to a dry mix, a separate dependent claim to the batter and a separate dependent claim to the method of preparing a sponge cake using microwave energy and the batter. The Examiner further stated that Applicant is encouraged to make the amendment as suggested in order to advance prosecution and that the Examiner will not

Hirce Takashima
Serial No.: 09/851,070
Filed: May 8, 2001
Page 7

restrict between the method of making the sponge cake, making the batter and the composition of the dry sponge cake premix. The Examiner stated that in making the amendments as suggested by the Examiner, Applicant is advised to make sure that claims 11-13 are not duplicative.

The Examiner stated that claims 2-9 are rejected as being dependent upon a rejected base claim.

In response, without conceding the correctness of the Examiner's position but solely to advance the prosecution of the subject application, Applicant has hereinabove amended claims 1-10. Applicant maintains that the claim amendments do not narrow the scope of the claimed invention, but rather place the claims in better form for examination.

Applicant respectfully submits that amended claims 1-10 clearly recite the subject matter Applicant presently claims as the invention. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-10 under 35 U.S.C. §112, second paragraph.

Rejection Under 35 U.S.C. §102(b)

In Section 4 of the May 29, 2003 Office Action, claims 1-4 were rejected under 35 U.S.C. §102(b) as purportedly anticipated by Japanese Patent Application Publication No. 10-56946 (hereinafter "Yumiko '946").

The Examiner stated that Yumiko '946 teaches a bakery product and dry mix for making a bakery product such as a bread, cake, or biscuit using a cereal powder, which includes a mixture, comprising a waxy corn starch and a pregelatinized tapioca starch. The Examiner also stated that the waxy corn starch is in

Hirao Takashima
Serial No.: 09/851,070
Filed: May 6, 2001
Page 8

the amount of 30-60% by weight and the pregelatinized starch is in the amount of 20-45% by weight. The Examiner further stated that the premix can include other dry ingredients such as wheat flour, leaveners, oils and fats, dry cheese, flavors, fats/oils such as shortening, butter, vegetable oil and emulsifiers.

The Examiner stated that Yumiko '946 teaches that the premix can be made into a batter by adding either milk or water to the dry mix, which is then mixed. The Examiner also stated that the premix as described in Yumiko '946 anticipates the premix as claimed.

Applicant maintains that the claimed invention cannot be anticipated by Yumiko '946 because Yumiko '946 fails to disclose each and every element of the claimed invention.

This application relates to sponge cakes. For example, independent claim 1, as amended, relates to a premix comprising a main ingredient of a cereal powder, to be cooked into a sponge cake, by mixing a thermocoagulation protein to the premix, stirring the mixture and heating the mixture. The cereal powder comprises starch and pregelatinized starch.

Independent claim 2, as amended, relates to a method of preparing a sponge cake by heating with a microwave oven a batter stirring resultant mixture obtained by mixing a thermocoagulation protein, milk and/or water to a premix comprising main ingredients of starch and pregelatinized starch. The sponge cake is of a type that can be easily made at home with use of a microwave oven as described in the specification.

The claimed invention of the present application avoids the drawbacks of conventional sponge cakes that are made with a

microwave oven.

Conventional techniques typically use flour as the main ingredient of cereal powder. The conventional sponge cake has a viscoelasticity similar to that of a rubber material and has a hard texture. The conventional sponge cake, as time passes and the sponge cake cools down after it is made, starts to develop a dry texture and loses its moisture and the melt-in-mouth texture which is desired. The conventional sponge cake is hard to expand lightly and softly when increasing its volume. The above-described drawbacks of the conventional sponge cake are due to the protein gluten in the flour used as a main gradient of the raw material.

In the conventional sponge cake that uses flour, the denature of the protein gluten contained in the flour forms a meshwork structure in the sponge cake, and with this structure, gas generated from the baking powder is held in the meshwork, thereby supporting the sponge framework of the cake. However, the conventional sponge cake that uses flour has an excessive viscoelasticity due to the denature of the protein gluten contained in the sponge cake, and yields a hard texture similar to a rubber material. Further, it is hard to make the conventional sponge cake expand to a large volume while maintaining the light and soft properties, due to the protein denature of gluten.

There are also some techniques for making a sponge cake that use flour containing a smaller amount of gluten or a low-protein flour. However, in these techniques, the support structure of the cake in which a meshwork structure is formed in the sponge cake and the gas generated from the baking powder is held by the meshwork in order to support the framework of the sponge of the

Hirao Takashima
Serial No.: 09/651,670
Filed: May 6, 2001
Page 10

cake, is greatly deteriorated. In this case, the sponge cake, just after the baking, cannot maintain its volume, and shrinks.

In contrast, the claimed invention does not use flour as the main gradient of cereal powder. Starch and pregelatinized starch which contain no gluten protein are used as the main ingredients.

In addition, a thermocoagulation protein (such as albumin) is used as a substitute material for the flour, which is a conventional thermal coagulation material. The sponge cake which is prepared by applying the claimed invention maintains the meshwork structure of the cake by using a thermocoagulation protein such as albumin. With the thermocoagulation protein such as albumin, the meshwork structure of the sponge cake can be maintained.

Yumiko '946 discloses a technique which is different from the methodologies of the present application for preparing a sponge cake. The technique disclosed in Yumiko '946 is for a bakery product. Yumiko '946 is not directed to sponge cakes but to other bakery products such as French bread.

Yumiko '946 explicitly states that the products do not require fermentation with yeast. Further, in the examples of Yumiko '946, yeast or baking powder is not employed at all. Yumiko '946 makes no mention of a technique that uses baking powder, and naturally it does not discuss a technique of solving the problems innate to sponge cakes.

Since Yumiko '946 does not disclose or suggest methods for preparing sponge cakes, Yumiko '946 cannot anticipate the claimed invention.

Hirao Takashima
Serial No.: 09/851,070
Filed: May 8, 2001
Page 11

Regarding claims 3 and 4, Applicant respectfully points out that claims 3 and 4 depend on and include all the limitations of claim 1. Thus, claims 3 and 4 are patentable at least for the reasons set forth above with respect to claim 1.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-4 under 35 U.S.C. §102 (b).

Rejection Under 35 U.S.C. §103(a)

In Section 7 of the May 29, 2003 Office Action, claims 5-15 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Yumiko '946 in view of U.S. Patent No. 5,015,486 to Franssell et al. (hereinafter "Franssell '486").

The Examiner stated that Yumiko '946 teaches the invention substantially as claimed. The Examiner also stated that Yumiko '946 teaches a premix which includes as a main ingredient a cereal powder comprising starch and pregelatinized starch. The Examiner further stated that the premix includes other ingredients which include proteins, flour, fats/oils, flavors, leaveners, emulsifiers to which milk or water is added to form a batter from the dry premix. The Examiner stated that the premix as described in Yumiko '946 can be used for making a number of bakery type products, which include bread, muffins, and cakes.

The Examiner acknowledged that Yumiko '946 does not teach how the batter is baked, i.e. specifically using microwave energy as claimed or whether the pre-mix includes a dietary fiber. The Examiner acknowledged that Yumiko '946 does not teach use of the premix or batter to be cooked using microwave energy. The Examiner also acknowledged that Yumiko '946 does not teach adding dietary fibers specifically.

The Examiner stated that Franssell '486 teaches preparing a dry mix for making muffins and other bakery items using microwave energy. The Examiner also stated that the dry mix includes flour, pregelatinized starch, emulsified shortening, chemical leavening agents, color/flavoring materials and combinations of psyllium and guar gum. The Examiner further stated that the dry mix can include optional components, which include flavor/coloring agents, such as cocoa, egg white solids, salt, coloring agents, flavoring agents, nuts and fruit.

The Examiner stated that other ingredients include oat bran and psyllium. The Examiner also stated that Franssell '486 teach that the dry mix can be made into a batter by adding to the dry mix water, liquid oil, or other liquid ingredients. The Examiner further stated that after making the batter, the batter is deposited into muffin paper cups and microwave heated for 1-2 minutes.

The Examiner alleged that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a dry mix which includes dietary fiber and can be made into a batter which is microwaveable to provide bakery items such as breads, sponge cakes or muffins from the combined teachings of Yumiko '946 and Franssell '486 because the dry premix which includes as a main ingredient a cereal powder which comprises a starch and pregelatinized starch for making bakery items such as bread, cakes, muffins has been specifically taught by Yumiko '946.

The Examiner stated that Franssell '486 teaches making a dry

Hirao Takashima
Serial No.: 09/851,670
Filed: May 8, 2001
Page 13

premix, and then a batter from the premix which includes flour, pregelatinized starch, sugar, shortening component, chemical leavening agent, gum system and optional components. The Examiner also stated that the premix does not include adding a dietary fiber, which includes psyllium and or oat bran. The Examiner further stated that the premix/batter from the premix is designed for microwave cooking.

The Examiner alleged that to use the specific cereal powder ingredients which include a starch and pregelatinized starch as a flour replacement as taught by Yumiko '946 in the premix of Franssell '486 would have been obvious because both Yumiko '946 and Franssell '486 teach a dry bakery premix which is made into a batter by the addition of a liquid to provide a batter which has a viscosity as claimed.

The Examiner further stated that the compositional ingredients of the premix proportions are within the range as claimed by Applicant.

The Examiner alleged that the amount of liquid to optimize the viscosity of the batter which provides best results would have been obvious to one having ordinary skill in the art.

Applicant maintains that Yumiko '946 and Franssell '486 do not render obvious the claimed invention. The claimed invention is patentable over Yumiko '946 and Franssell '486 for at least the following reasons.

Claim 1 relates to a premix for a sponge cake, and claim 2 relates to a method for preparing the corresponding sponge cake. Moreover, Yumiko '946, as discussed above, does not relate to sponge cakes, and does not purport to provide techniques which

Hirao Takashima
Serial No.: 09/651,670
Filed: May 6, 2001
Page 14

can be adapted to overcome the problems of preparing sponge cakes.

Franssell '466 relates to a dry mix for preparing muffins, in which flour is used as a raw material. Example 1 of Franssell '466 uses flour as a main ingredient in an amount of 51.8% by weight. By contrast, as described before, flour is not used as the main ingredient of the cereal powder, according to the claimed invention of the present application. Thus, the technique of Franssell '466, like Furukawa '346, is patentably distinct from the claimed invention.

Applicant does not find a teaching or suggestion in the cited art of a sponge cake in which starch and pregelatinized starch are used as the main ingredient of cereal powder and a thermocoagulation protein is used to maintain the framework structure of the sponge cake, thereby making it possible to achieve the desired effect, as provided by the claimed invention, including eliminating a hard texture from a viscoelasticity similar to a rubber material, being able to expand greatly with light and soft texture and voluminous appearance, and maintaining moisture and melting texture of a sponge cake without a dry texture even as time passes and the sponge cake cools down after it is made.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 5-15 under 35 U.S.C. §103.

In view of the amendments to the claims and remarks hereinabove, Applicant maintains that claims 1-16 are now in condition for allowance. Accordingly, Applicant earnestly solicits the allowance of claims 1-16.

Hirce Takashima
Serial No.: 09/851,070
Filed: May 8, 2001
Page 15

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicant's undersigned attorneys invite the Examiner to telephone them at the telephone number provided below.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

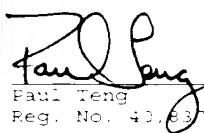
No fee is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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August 19, 2003
Date